

caring for the environment

# **Absorption Heating & Cooling Solutions**

Gas Fired - Single Phase No Mechanical Compressors or Engines CSA Approved - CEC Listed - 100% Capacity tested



AIR SOURCE HEAT PUMPS GAHP-AR - Approx. 5 Tons Cooling - 120,400 BTU/h Heating GAHP-A - Heating only - 123,500 BTU/h



WATER SOURCE HEAT PUMPS GAHP-W - 4.5 Tons Cooling - 132,400 BTU/h Heating GAHP-W LB - Approx. 4 Tons Cooling - 119,400 BTU/h Heating



AIR COOLED CHILLERS ACF - 4 & 5 Tons Cooling ACF HR - 5 Tons Cooling with Heat Recovery



CHILLER-HEATERS AYF - 4 & 5 Tons Cooling - 110,900 BTU/h Heating



MODULAR CHILLERS and CHILLER-HEATERS RTCF - Air Cooled - Up to 25 Tons Cooling -All on single phase RTYF - Modular Chiller-Heaters - Up to 20 Tons Cooling -Up to 443,600 BTU/h Heating



## THERMAL HEATING MODULES

AY - 110,900 to 554,500 BTU/h Heating

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# Gas Fired Absorption Heat Pumps Air Source and Water Source

**Microprocessor Controlled - Low Emissions** 

#### Air Source Heat Pumps - Heating Efficiency Up To 146%

Electrical power requirements are kept to a minimum. Designed for outdoor installation only, thereby requiring no valuable indoor space for the unit or flue.



**GAHP-A** - A heating only system that provides 129% heating efficiency at nominal conditions with hot water production up to 140 °F and nominal heating capacity of 123,500 BTU/h (95,500 BTU/h input). Ideal for applications requiring the highest heating efficient gas fired appliance on the Market for domestic or industrial hot water use or comfort conditioning applications.



**GAHP-AR** - Reversible absorption cooling cycle with 126% heating efficiency at nominal conditions. The reversible absorption heat pump is a gas fired unit providing approximately 5 tons of cooling. Chilled water down to 37.4 °F is possible. In the heating mode hot water up to 140 °F is possible providing 120,400 BTU/h nominal output (95,500 BTU/h input). This unit uses outside air for heat rejection in the cooling mode and outside air as a heat source in the heating mode.

### Water Source Heat Pumps - Heating Efficiency Up To 150%

These water cooled absorption heat pumps provide chilled and hot water simultaneously. The absorption cycle of the Robur GAHP-W LB and GAHP-W is water-cooled on both condenser/absorber side and evaporator side to allow recovery of low temperature heat from water sources (lakes, rivers, ponds, etc.) or ground source to achieve heating efficiencies up to 150%. This system is designed for indoor installation.



**GAHP-W LB** - Cooling capacity up to approximately 4 tons and heating capacity up to 119,400 BTU/h nominal output (95,500 BTU/h input) while supplying hot water up to 140 °F. 125% heating efficiency at nominal conditions.



**GAHP-W** - Cooling capacity up to 4.5 tons and heating capacity up to 132,400 BTU/h nominal output (95,500 BTU/h input) while supplying hot water up to 149 °F. 139% heating efficiency at nominal conditions.

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## Individual and Modular Gas Fired Absorption Chillers

Natural or Propane Gas Operation - All models 208/230V Single Phase Operation



#### Chiller - ACF Series

These commercial grade chillers offer complete hydronic flexibility for custom residential and light commercial comfort conditioning and industrial process cooling applications.

**ST version - 5 Tons**. For installation in climates with design temperatures less than 104 °F. Chilled water supply temperature down to 37.4 °F.

**HT version - 5 Tons**. For installation in climates with design temperatures over 104 °F. Chilled water supply temperature down to 37.4 °F.

**TK version - 5 Tons**. For industrial & Commercial applications requiring heavy use on a year round basis.

**LB version - 4 Tons**. For installations requiring chilled water temperatures from 37.4  $^{\circ}$ F to 14  $^{\circ}$ F.

**HR version - 5 Tons with Heat Recovery**. For any application requiring the use of free supplemental hot water during chiller operation. Chilled water supply temperature down to 37.4 °F and recovered heat capacity of 86,400 BTU/h with hot water up to 176 °F.



### Chiller Links - RTCF Series Up to 25 Tons Cooling

These modular chillers offer outstanding flexibility and performance.

Factory mounted on heavy steel rails. Interconnecting gas, water and electrical lines

are pre-assembled by Robur to allow the modular package to operate as one integrated system with staging capability.

All Link packages require only 208/230 V, single phase electrical service. Modular systems may be configured using the ST, HT, TK, LB or HR chillers to fit many application requirements.

HR system available in a 4-pipe configuration only.

# Individual and Modular Gas Fired Absorption Chiller-Heaters and Thermal Heating Modules

Natural or Propane Gas - All models 208/230V, Single Phase Operation



### **Chiller-Heater - AYF Series**

This model combines the ACF chiller with a Robur copper finned tube boiler. Nominal heating output of 110,900 BTU/h. Maximum leaving hot water supply temperature up to 185 °F. Utilize the flexibility and comfort of year-round chilled water cooling and hot water heating integrated into one outdoor package.

No indoor space required for heating equipment and flue venting. Available in a two pipe configuration for either chilled or hot water supply, or four pipe configuration to allow simultaneous chilled and hot water production.

The heater side may be combined with the ST, HT, TK or LB chillers to fit many application requirements.



### Chiller-Heater Links - RTYF Series Up to 20 Tons Cooling and 443,600 BTU/h Heating

These modular systems combine the flexibility of chilled and hot water into one package. Two pipe configurations allow for either chilled or hot water supply or available as four pipe

configurations to allow simultaneous chilled and hot water. Complete with staging capability for true operating efficiency and performance. Modular systems may be configured using the ST, HT, TK or LB chillers and chiller-heaters to fit many application requirements.



# Thermal Heating Module - AY Series Stand alone boiler

If a reliable hot water source is your requirement, this copper finned tube boiler is your solution. It is installed outside to free valuable indoor space. Nominal heating output from 110,900 to 554,500 BTU/h. Maximum hot water supply temperature up to 185 °F. Microprocessor control is a standard feature. Suitable for field piping multiple heater units together to satisfy larger heating requirements with modularity, redundancy and staging capability. Ideal for custom residential, commercial or industrial applications.



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